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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 19 July 2000 (19.07.00)	
International application No. PCT/EP99/09167	Applicant's or agent's file reference TS 5549 PCT
International filing date (day/month/year) 16 November 1999 (16.11.99)	Priority date (day/month/year) 18 November 1998 (18.11.98)
Applicant BARRE, Guy et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
30 May 2000 (30.05.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Olivia RANAIVOJAONA</p> <p>Telephone No.: (41-22) 338.83.38</p>
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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference TS 5549 PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 99/09167	International filing date (day/month/year) 16/11/1999	(Earliest) Priority Date (day/month/year) 18/11/1998
Applicant SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

national Application No

PCT/EP 99/09167

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C10G45/64

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	EP 0 180 354 A (MOBIL OIL CORP) 7 May 1986 (1986-05-07) cited in the application the whole document ---	1-13
A	US 5 804 058 A (GRANDVALLET PIERRE ET AL) 8 September 1998 (1998-09-08) column 6, line 23 - line 38; claims 1-14 ---	1-13
A	WO 96 26993 A (MOBIL OIL CORP) 6 September 1996 (1996-09-06) the whole document ---	1-13
A	EP 0 313 276 A (MOBIL OIL CORP) 26 April 1989 (1989-04-26) the whole document ---	1-13

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
 "&" document member of the same patent family

Date of the actual completion of the international search

8 February 2000

Date of mailing of the international search report

16/02/2000

Name and mailing address of the ISA

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Authorized officer

Michiels, P

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 99/09167

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 773 277 A (SHELL INT RESEARCH) 14 May 1997 (1997-05-14) the whole document ---	1-13
A	US 4 568 655 A (OLECK STEPHEN M ET AL) 4 February 1986 (1986-02-04) claims 1,7 ---	1-13
A	US 4 510 044 A (OLECK STEPHEN M ET AL) 9 April 1985 (1985-04-09) the whole document -----	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 99/09167

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 180354	A	07-05-1986	AU 4817385 A ES 548263 A JP 61108692 A	08-05-1986 01-09-1986 27-05-1986
US 5804058	A	08-09-1998	AU 6303496 A BR 9608802 A CA 2224648 A CN 1193335 A WO 9641849 A EP 0832171 A JP 11507969 T SK 169997 A	09-01-1997 17-02-1999 27-12-1996 16-09-1998 27-12-1996 01-04-1998 13-07-1999 05-08-1998
WO 9626993	A	06-09-1996	AU 706864 B AU 4289196 A EP 0799082 A JP 10511425 T	24-06-1999 18-09-1996 08-10-1997 04-11-1998
EP 313276	A	26-04-1989	AU 2414488 A CA 1306716 A CN 1032810 A,B FI 884884 A,B, IN 171776 A JP 1152189 A JP 2609467 B	27-04-1989 25-08-1992 10-05-1989 23-04-1989 02-01-1993 14-06-1989 14-05-1997
EP 773277	A	14-05-1997	AU 7066496 A CA 2189833 A CN 1152606 A JP 9137171 A SG 45514 A US 5951847 A	15-05-1997 10-05-1997 25-06-1997 27-05-1997 16-01-1998 14-09-1999
US 4568655	A	04-02-1986	AU 4817285 A EP 0183363 A ES 548259 A JP 61111142 A US 4696732 A	08-05-1986 04-06-1986 01-12-1986 29-05-1986 29-09-1987
US 4510044	A	09-04-1985	US 4458024 A JP 58146445 A US 4440630 A	03-07-1984 01-09-1983 03-04-1984

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TS 5549 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/09167	International filing date (day/month/year) 16/11/1999	Priority date (day/month/year) 18/11/1998
International Patent Classification (IPC) or national classification and IPC C10G45/64		
Applicant SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ BV & AL		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30/05/2000	Date of completion of this report 31.01.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Van Iddekinge, R Telephone No. +49 89 2399 8346 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/09167

I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

Description, pages:

1-23 as originally filed

Claims, No.:

1-12 as received on 07/11/2000 with letter of 06/11/2000

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item..

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/09167

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-12
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-12
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-12
	No:	Claims	

2. Citations and explanations see separate sheet

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1). Reference is made to the following documents:

D1=EP-A-180354

D2=WO-A-96/41849 (mentioned on page 2 of the description)

Novelty

- 2). The process for the catalytic dewaxing of a hydrocarbon oil feed according to claim 1 differs from that of D1 in that D1 does not disclose that zeolite crystallites have a constraint index of between 2 and 12, see D1: claims 1, 6; column 3, lines 40-53; column 4, lines 37-45; column 5, lines 18-23. The zeolite Beta mentioned in D1 has a lower constraint index. The preferred binder material in D1 contains alumina.

The process for the catalytic dewaxing of a hydrocarbon oil feed according to claim 1 differs from that of D2 in that D2 does not describe that the feed contains more than 500 ppmw of sulphur, see D2: page 12, line 25- page 15, line 6; examples 4, 5. In the examples only lower sulphur contents are mentioned (example 1: 350 ppmw; examples 3-5: 2.9 ppmw).

Since dependent claims 2-11 describe embodiments of claim 1, the subject-matter of these claims is also novel. The method for retrofitting according to claim 12 is novel, because it uses the process according to claim 1.

Therefore claims 1 to 12 fulfil the requirements of Article 33(2) PCT (novelty).

Inventive step

- 3). D1 is less relevant for the inventive step than D2, because it describes a combination of dewaxing and hydrotreating (desulphurization and denitrogenation), which is less flexible.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/09167

In the letter dated 6.11.2000 the applicant has cited several documents, that show that there existed a prejudice against using feeds having a high sulphur content, because these feeds are able to poison the dewaxing catalyst. Thus it would not have been obvious to use the process for the catalytic dewaxing of a hydrocarbon oil feed according to D2 for feeds containing more than 500 ppmw of sulphur.

Therefore claims 1 to 12 fulfil the requirements of Article 33(3) PCT (inventive step).